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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 18 AUG 1987

SUBJECT: ACTION MEMORANDUM
Removal Action at Dayton Tire & Rubber Co., Dayton, Ohio

FROM: Valdas V. Adamkus
Regional Administrator

TO: J. Winston Porter, Assistant Administrator
for Solid Waste & Emergency Response (WH-562A)

THRU: Timothy Fields, Director
Emergency Response Division (WH-548B)

PURPOSE

The purpose of this memorandum is to obtain a waiver of the $2,000,000 statutory limitation on removal actions and to increase the authorized ceiling on the removal action at the Dayton Tire & Rubber Company site at Dayton, Ohio, from $806,000 to $4,276,000.

BACKGROUND

On April 3, 1987, the Ohio Environmental Protection Agency (OEPA) reported that there had been a release of up to 1,600 gallons of oil from four large transformers near Wolf Creek in Dayton, Ohio. Wolf Creek is a tributary to the Great Miami River. The transformers were at the site of the Dayton Tire Company, which went out of business during 1980. The area around the transformers was saturated with oil, and a slick was on the stream. The concentration of polychlorinated biphenyls (PCB) in the oil was 22,900 parts per million (ppm). The OEPA had hired a contractor, Leston Sewer Company, who boomed the stream and started to skim oil. It was clear that the response would require more than $10,000 that the OEPA was authorized to spend. Therefore, the OEPA requested assistance from the United States Environmental Protection Agency (U.S. EPA).

An On-Scene Coordinator (OSC) was dispatched and arrived on-scene during the evening of April 3, 1987. He was verbally authorized to expend up to $40,000 of Federal funds to supplement the State's response action. The Technical Assistance Team (TAT) contractor responded to assist the OSC, and the Emergency Response Contracting Services (ERCS) contractor responded because the scope of the response was beyond the resources of the Leston Sewer Company.

The stream was boomed, but oil escaped because the water level was high. The stream sediments are believed to be contaminated, up to a mile downstream. Over 200 gallons of free oil were recovered from around the transformers, and seventy 55-gallon drums of oil/water were recovered from the stream. Oil was no longer entering the stream, but precipitation could cause a further discharge, so the booms were left in place.

The OSC found that many more transformers and capacitors are located inside the Dayton Tire Company building and on its roof. Many have been drained, and there is a substantial amount of PCB oils on the floors of the building. The building also contains a substantial quantity of asbestos-lined piping in poor condition. There is considerable evidence of vandalism in the building. Due to the unanticipated widespread contamination found in the building, the cost of characterizing and controlling the site was greater than estimated. The OSC requested an additional $10,000, which was verbally approved on April 7, 1987.

The Dayton Tire Company facility is a large four-story building, approximately 1,000 feet long and 500 feet wide. It contains 37 large transformers, most of which were PCB transformers, and over 50 large capacitors which contain very high concentrations of PCB. There are eight 12,000-gallon storage tanks in the basement, three buried railroad tank cars containing sludges, many large mixing vats, and approximately one hundred 55-gallon drums whose contents are, as yet, unknown. It also contains thousands of feet of 12" and 8" steam lines which were insulated. Much of this insulation has been torn down by scavengers. A team expert in asbestos removal collected 10 samples of this material, and found 7 to be primarily asbestos, and 3 to be primarily fiberglass with asbestos layers. This material is friable and is clearly a source of airborne asbestos fibers. Some of it has been crushed by vehicles driven into the building by scavengers. The building contains thousands of windows, virtually every one of which has been broken. Many of these windows were covered by visqueen, in order to reduce discharge of asbestos from the site.

On April 14, 1987, the OSC returned to the site because precipitation had caused additional oil discharges to the stream. On April 15, 1987, an additional $40,000 was verbally approved to control these new discharges. These new discharges could not be attributed to drained transformers, so a search was made to determine the source. A large network of underdrains and sewers, with a small pump station which drains the area beneath and around the building, was found. This system is heavily contaminated and will discharge oil whenever there is significant precipitation.

On April 17, 1987, an additional $200,000 was verbally authorized to control discharges from the drainage system, initiate cleanup of the building, and complete extent of contamination surveys.

On July 6, 1987, an additional $516,000 was authorized by the Regional Administrator to remove PCB-contaminated sediments from Wolf Creek, which resulted from spills from the Dayton Tire & Rubber Co. site. The fish in Wolf Creek and the Great Miami River were found to be contaminated with PCB concentrations as high as 18 ppm. The limit for PCB in edible portions of fish is 2 ppm. Local health authorities have issued public advisories against consuming fish from the area.

The Dayton Tire & Rubber Company site is not on the National Priorities List.

THREAT

Section 300.65 of the National Contingency Plan authorizes removal action where there are ... "Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations, animals or food chain," and where there are "high levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate." PCBs are persistent hazardous substances, capable of causing both short-term and long-term local and systemic health effects in humans. They are known to bioaccumulate in the food chain and are suspected human carcinogens.

There are large amounts of loose and friable asbestos in the building that can be blown off-site by winds through the broken windows and open doorways.

Paragraph 104 (a)(3)(B) of the Superfund Amendments and Reauthorization Act (SARA) prohibits removals in response to a release from products which are part of the structure of and result in exposure within, residential buildings, a business, or community structures. This prohibition does not apply because the friable asbestos can be carried outside of the building and cause exposures outside of the building.

This proposed action includes the removal and disposal of friable asbestos which has been removed or has been knocked off of insulated pipes and insulated surfaces within the building. Airborne asbestos is a known human carcinogen. All types of asbestos fibers are carcinogenic. They produce mesotheliomas and lung carcinomas after inhalation. A high incidence of cancer is associated with occupational exposure. The material that has been removed for the pipes is lying loose on the floor and is no longer a part of the structure. Since it is not possible to conduct the removal without distributing the asbestos on the floor, this material constitutes a hazard to the personnel on the site. The buildings have many large openings at truck bays, and there are thousands of windows which have been broken. There can be substantial drafts of air through the buildings, which are capable of picking up asbestos particles and transporting them out of the building and off-site. In order to abate this threat, which constitiutes an environmental emergency, the friable asbestos must be removed, and the remaining asbestos must be sealed so that it cannot become friable.

This action is a time critical removal. The site has been temporarily secured; but since the roof drains are plugged, the building is subject to ice and snow damage on the roof if action is not taken before cold weather. A collapsed roof would greatly increase the cost of a removal action, particularly if the contaminated portion of the roof collapsed. It would also constitute a hazard to workers on the site. The temporary visqueen sheets placed over the windows to reduce asbestos discharges will not survive severe winter weather. If they are destroyed, airborne asbestos may be carried to the residental areas adjacent to the site.

STATUTORY CRITERIA

Section 104(c)(1) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended by SARA, limits Federal emergency response to $2 million, unless three criteria are met.

1) Continued response actions are immediately required to mitigate an emergency.

2) There is an immediate risk to public health or the environment.

3) Such assistance will not otherwise be provided on a timely basis.

The manner in which the Dayton Tire & Rubber Company site meets the criteria for waiver of the $2,000,000 limitation is as follows:

1) Continued response actions are immediately required to mitigate an emergency. The site contains approximately 20 cubic yards of loose friable asbestos which can become airborne if exposed to drafts or winds. This material constitutes a hazard to workers on the site or to anyone else within the building. In addition, the buildings contain thousands of windows which appear to have been systematically broken. This, combined with large openings at truck loading docks and ramps, creates strong drafts and winds through the building which can pick up the friable asbestos and carry asbestos fibers to the nearby residential areas. The nearest residences are approximately 50 yards from the building on the south side of the site. This threat has been temporarily mitigated by closing all of the doors as much as possible, and by covering the broken windows with visqueen sheets. These measures are clearly temporary in nature. The risk can only be eliminated by removing the friable asbestos and sealing the slightly damaged insulation so that it cannot become friable.

2) There is an immediate risk to the public health or the environment. The existance of high concentrations of PCB and dioxin in the building and in the drainage system under the building constitutes a direct contact threat to anyone who enters the building, and a threat of discharge to the environment if the drainage system becomes flooded. PCB concentrations as high as 73 percent have been found on the floors and walls of the building where oil from electrical equipment was spilled by scavengers. Dioxin concentrations as high as 569 ppb TCDD have been found where insulation was burned in areas where PCB-contaminated oils had been spilled. PCB concentrations as high as 9,700 ppb have been found in the underdrain system. The soil in the vicinity of the original spill from the transformers on the roof has concentrations of 2,670 ppm. The roof itself is stained with oils containing almost 80 percent PCB. Fish in Wolf Creek and the Great Miami River have been found to have concentrations of 5 to 18 ppm, which is higher than the 2 ppm limit for the consumption of fish. County and city health authorities have issued advisories to the public against eating fish from these streams. The most contaminated

sediments were removed from Wolf Creek by the U.S. EPA during July 1987, but there is a threat of additional discharges from the site if the contaminants are not removed. Further discharges would perpetuate the contamination of the fish in the area.

3) Such assistance will not otherwise be provided on a timely basis. The OEPA has exhausted its authority to expend emergency funds on the site. None of the potentially responsible parties have indicated a willingness to undertake the work. During the initial response, a number of actions were taken to temporarily abate the threats presented by the site. These involve sealing the doorways and openings and placing visqueen sheets over the broken windows to reduce the discharge of airborne asbestos from the site, the elimination of the discharge from the pump station and the use of the pump station to store water from the drainage system, and the sealing of all roof drains to minimize flow into the drainage system. The visqueen will not survive severe winter weather; and the pump station will eventually fill up and overflow, even though flow has been minimized. Freezing and thawing will damage the pump station and the roof, which will be flooded due to the blocked drains. This will eventually lead to weakening or collapse of the roof and to discharge from the pump station.

PROPOSED ACTION

Site security will be maintained. The fences will be repaired and open doors sealed, except as required for the removal action. The hazardous materials will be removed from the site so that all public health risks and risks to the environment are mitigated. Soils containing PCB concentrations of 25 ppm or greater will be excavated and disposed of in accordance with the EPA's PCB removal policy (40 CFR Part 761). If, in the judgment of the OSC, there are areas which are high access areas, any soils with concentrations greater than 10 ppm will be removed. The interior walls and floors which have been contaminated by PCB and the roof and exterior wall which was contaminated by the drainage of the roof transformers will be cleaned to 10 ug/100cm^2, as required by the PCB removal policy.

All capacitors and transformer carcasses shall be removed and disposed of according to the requirements of the Toxic Substances Control Act (TSCA). The capacitors will be incinerated. The transformer carcasses shall be decontaminated and recycled. Metal bands and other materials that have been removed from transformers and capacitors by scavengers shall be decontaminated and recycled.

PCB-contaminated stream sediments and soils which were removed during previous actions and stored on-site shall be disposed of in accordance with TSCA regulations.

Areas contaminated by dioxins and dibenzofurans will be decontaminated. The contaminated material shall be secured and stored on-site until a suitable disposal method is available.

Loose and friable asbestos shall be removed and disposed of in accordance with the requirements of 40 CFR Part 61. Sightly damaged or undamaged asbestos shall be sealed by spraying with lacquer or some other suitable technique to prevent the formation of airborne asbestos particles. The contents of the buried railroad tanks and storage tanks will be determined and disposed of as required. The drainage system will be removed where it is accessible, and the remaining portion will be thoroughly flushed to minimize future discharges of PCB-contaminated oils. Water and solvents used for flushing shall be treated before being discharged to the city sewer system.

Consistency with long-term remedial action. Section 104(a)(2) of CERCLA, as amended by SARA, requires that removals must "contribute to the efficient performance of any long-term remedial action." This proposed action constitutes a complete surface cleanup of hazardous materials from the site, and no further Federal effort will be required after it is completed. There is no evidence of groundwater contamination. The action will enable the City of Dayton, or some other entity, to demolish and/or redevelop the property using normal demolition and construction techniques. It, therefore, contributes to the efficient performance and is consistent with any long-term action that may take place on the site.

1) What is the long-term cleanup plan for the site?

   The dioxin-contaminated material will remain on-site until a feasible disposal method is determined. Some non-friable asbestos will remain, which will have to be addressed during demolition and/or resale of the property.

2) Which threats will require attention prior to the start of the long-term action?

   The threat of PCB discharge from the site, the direct contact threat from dioxin and PCB in the building, and the threat of airborne asbestos to personnel on the site and the surrounding community require attention.

3) How far should the removal action go to assure that the threats are adequately abated?

   The removal action should consist of a complete surface removal to remove the hazardous materials and prevent the release of airborne asbestos.

4) Is the proposed action consistent with the long-term remedy?

   Yes. The completion of the removal action will enable the City of Dayton, or some other entity, to demolish and/or redevelop the property, using normal demolition and construction techniques. It, therefore, contributes to the efficient performance and is consistent with any action that may take place on the site.

RECOMMENDATION

Because conditions at the Dayton Tire & Rubber Company site in Dayton, Ohio, meet the NCP §300.65 criteria for a removal action and the Section 104(c)(1) criteria for waiver of the $2,000,000 limitation on removal actions, I recommend that you approve the waiver and increase the project ceiling from $806,000 to $4,276,000.

Valdas V. Adamkus

APPROVED: _____ DATE: _____

ASSISTANT ADMINISTRATOR
FOR SOLID WASTE & EMERGENCY RESPONSE

DISAPPROVED: _____ DATE: _____

ASSISTANT ADMINISTRATOR
FOR SOLID WASTE & EMERGENCY RESPONSE

ATTACHMENTS (2)